



Department of
CHEMICAL ENGINEERING

THE UNIVERSITY OF UTAH

Senior Class of 2020



Graduation Awards

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STUDENT AWARDS

Oblad Medal of Excellence

The Oblad Medal of Excellence and the accompanying cash award are offered to senior students whose scholastic performance exceeds that of their peers in the disciplines of Mining, Metallurgical, and Chemical Engineering. The medal carries the name and likeness of Dr. Alex Golden Oblad who was the initial grantor in 1977. Dr. Oblad was a Distinguished Professor of Metallurgical and Fuels Engineering from 1969 until 1995.

Alex Oblad received bachelor's and master's degrees in chemistry from the University of Utah, then went to Purdue University where he earned his Ph.D in chemistry in 1937. Prior to joining the faculty at Utah, Oblad worked as a research chemist for several oil and chemical companies. Dr. Oblad received several honors including the Chemical Pioneer Award from the American Chemical Society, honorary doctorate degrees from the University of Utah and from Purdue University, and the E. V. Murphree Medal of Excellence in Industrial Chemistry.

He was co-author and author of dozens of technical papers on the chemistry of homogeneous catalysis and on the recovery and upgrading of petroleum from the oil sands of Utah. His name appears on some 45 U. S. Patents. Dr. Oblad died in Salt Lake City in the year 2000.

Recipient: Misha Bekeris

“Born and raised in Sitka, Alaska, I first began attending the University of Utah in 2016 to study a degree I never knew I would come to love - Chemical Engineering. During my time at the U, I've involved myself in clubs and activities such as ChemE Car, undergraduate research, and the University of Utah Percussion Ensemble. Now, in 2020, I am a proud graduate of the University of Utah's Chemical Engineering program. Post-graduation, I hope to further my career, accepting a full-time offer to work at Micron Technology, Inc. as a Manufacturing Development Engineer after the summer.”

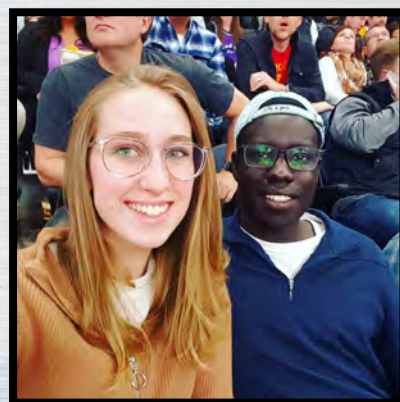


Outstanding Senior

The outstanding senior award is determined by the graduating class each year to recognize one of their peers.

Giovanna Ruai

"I can't begin to express the gratitude I feel towards my family, classmates, and faculty for the countless hours they spent helping me. For all the times I wanted to give up, there was someone there to work on the homework with or someone to spend a few minutes talking about anything but the work with. Although I am sad to see the end of this chapter, I'm glad that I'll get another chance to see everyone in December for the physical commencement ceremony. I hope the best for everyone, especially during these times."



Outstanding TA

The outstanding TA award is determined by the faculty awarded to a student who was a TA that exceeded expectations

Matt Dailey



"Matt Dailey has been a TA for our Freshman courses for two years and he has been unfailingly reliable. He is far from a passive TA; Matt actively improves the courses he TAs by unique contributions to improve the curriculum. Matt makes himself unusually available, and continues to be a humble and approachable source of information for students even after he's no longer their TA. Our students look up to him both in and out of the classroom. He has also been very involved in our outreach program - mentoring our prospective students." Dr. Tony Butterfield

After graduation, Matt will be working towards a PhD in Chemical and Environmental Engineering at the University of Arizona under Dr. Adam Printz.

Achievement Award

The achievement award is chosen by the faculty for students who overcame challenges and despite them excelled.

Mary Jeppson

Mary Jeppson will be continuing her education by pursuing a PhD at the University of Utah working under Swomitra Mohanty. An accomplished violinist, Mary has violin performance degrees from the University of Utah and Rice

University. Mary has loved her time at the University of Utah studying chemical engineering and is excited to further master the material in the PhD program. Mary has a five year old son named Cyrus whom she hopes will enjoy learning about engineering with her as he grows up.



Achievement Award

The achievement award is chosen by the faculty for students who overcame challenges and despite them excelled.

Ulysses Ramirez



“I am a non traditional student with a previous degree. I went back to school to change careers and pursue a degree in Virology. Instead, I stumbled upon Chemical Engineering and after lots of time spent doing homework, studying, and sleep deprivation I can say that I would do it all over again. I have enjoyed and value the time spent. I look forward to the next chapter of my life.”

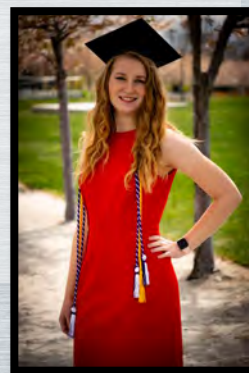
Leadership Award

The leadership award is chosen by the faculty for students who demonstrated outstanding leadership in the college and department

Wallis Scholl

“Wallis has demonstrated selfless leadership with her role in the leadership of the Society of Women Engineers. As a part of this group, Wallis has made major contributions to the Chem E student community by organizing events that provide students with opportunities to connect with industry and improve their employment opportunities. Wallis does not seek the spotlight, but quietly serves and does things that benefit her classmates. This is real leadership.” -Dr. Kody Powell

Wallis is interested in using chemistry to enhance technology and is excited to start a career at Intel after graduation. She would like to thank the Society of Women Engineers for everything they've done for her and her career.



Undergraduate Researcher Award

The undergraduate researcher award is chosen by the faculty for students who excelled in research

Justin Griffin

“Can’t believe that graduation is already here. After graduation I plan on working for Marathon Petroleum at their Salt Lake Refinery as a process engineer. I plan on living poor like a student for the next 4 years as my wife is starting medical school here at the University of Utah this fall. Chemical Engineering was the major I started with as a freshman and I made it to the end, no regrets with my decision. Grateful to all those students and professors who helped me a long the way. Hope we can all keep in touch!”



Outstanding Capstone Project

The Outstanding Capstone Project award goes to capstone projects chosen by the faculty as exceptional

**Kade Dalton, Brad Eisenhut and
Rachel Smith**

"Development of Cooling Tower Water Non-Phosphorus Corrosion Inhibitor"

Cooling towers are essential to processes for removing waste heat through evaporative cooling, and cooling water treatment is essential to cooling tower operation. The current industry standard is to add organophosphates as corrosion and scale inhibitors to recirculating cooling water. This maintains the system and extends the equipment life. These chemicals save water, because the water can be recirculated for a longer period of time before being bleed off to prevent scaling due to evaporation and "cycling up" the concentration of dissolved solids.

These chemicals also present problems however, cooling tower bleed off containing organophosphates are damaging to the environment and to the ecosystems in streams, rivers, and lakes. High phosphorus levels contribute to algae blooms like those recently seen in Utah Lake. Our capstone project was to develop a phosphorus-free cooling water treatment product that would perform similar to organophosphate-based programs. We were successful in achieving corrosion rates under 2 mils per year (mpy). The Association of Water Technologies (AWT) labels this level of corrosion control as "Excellent".

Special thanks to Power Engineering Co., Inc. for funding and supporting the project.



Status	Open System	
	Low	High
Excellent		0.1
Very Good	0.1	0.25
Good	0.25	0.35
Fair	0.35	0.5
Poor	0.5	1
Severe	1	



Outstanding Capstone Project

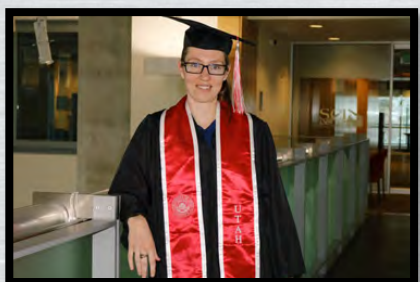
The Outstanding Capstone Project award goes to capstone projects chosen by the faculty as exceptional

Mary Jeppson and Preston Johnson

"Identifying Signature Organic Compounds in Pneumonia"

This project was conducted with the intent to discover the volatile organic compounds (VOCs) released in the breath of pneumonia patients. With that goal in mind, *S. Aureus* bacteria, a common bacterium found in pneumonia was cultured and the VOCs in the headspace above the bacteria was analyzed using gas chromatography mass spectroscopy (GCMS).

The results showed that two unique VOCs: 2-butanone, 3-hydroxyl and 3-methyl-butanoic acid were present in the bacteria headspace. Additionally, a baseline of healthy breath and environmental samples was collected. These VOCs and healthy breath data may be instrumental in designing a breath sensor for the detection of pneumonia for point of care diagnosis.



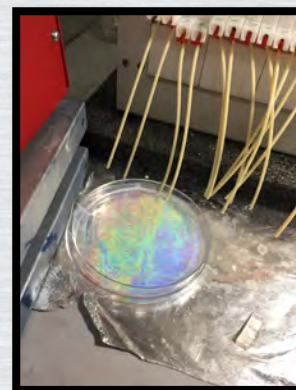
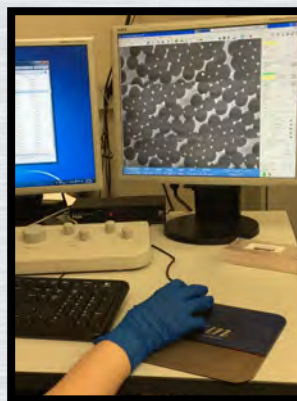
Outstanding Capstone Project

The Outstanding Capstone Project award goes to capstone projects chosen by the faculty as exceptional

**Benjamin Arce, Carolina Castro,
Wallis Scholl and Trevor Williams**

"Evaluating the Role of Triton-X in the Tunability of Gold Nanostars."

The Shumaker-Parry group had developed a working synthesis of gold nanostars. The resulting structures had short branches, which limited their applicability. By introducing a new surfactant (Triton X) into the synthesis, we successfully improved the branching of the Shumaker-Parry nanostars.



Academic Achievement Awards

The academic achievement awards are given to students who have demonstrated outstanding academic achievement.

Ananya Sriram

For post-graduation plans, Ananya will be working as a systems engineer at Medtronic.



Gabriel Mensinger



"I've absolutely loved my time here at the U and really sad that we couldn't spend more time together. I'm really excited to move to get to work at the Marathon Petroleum refinery in El Paso, Texas and I hope that one day we can get back together and celebrate right."

Academic Achievement Awards (continued)

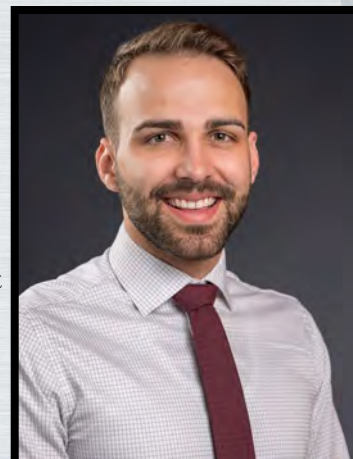
Michael Adkins



“Though we will be graduating, we should always stay grateful to those that helped along the way. Here's to the next step in our lives, wherever that may lead us.”

Collin Hoggard

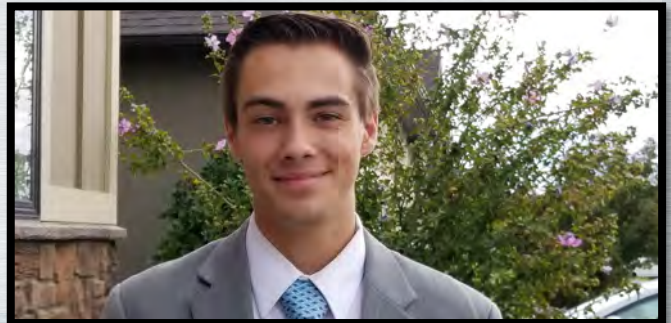
Collin Hoggard is originally from Highland Utah where he graduated from Lone Peak High School in 2014. He has three siblings and is the favorite uncle to a niece named Huckleberry. While at the University of Utah, he has worked on several research projects with Dr. Eric Eddings, Dr. Kerry Kelly, Dr. Tony Saad, and Dr. Mikhail Skliar. In addition to research, he was involved in the Chemical Engineering Outreach team and served as Vice President from 2018-2019 and as Vice President of AIChE from 2019-2020. He completed internships at Edwards Lifesciences and Procter and Gamble. After graduating he plans to continue his education with a graduate degree.



Academic Achievement Awards (continued)

Grayson Wallace

“After graduation, I am going to work for Procter and Gamble in Iowa City, Iowa as a process engineer at their beauty care facility”



Richard-Joseph Peterson



Academic Achievement Awards (continued)

Jeremy Bussard



“Thank you to my professors for pushing us to learn and to my groupmates for making the workload almost manageable.

A Special thanks to Dr. Butterfield for providing ample opportunities for career development and for tolerating me over the past four years.”

Daniel Wakeham

“The four years in this program have really flown by! I want to thank the faculty who go above and beyond in the way that they approach teaching. I want to thank my study group that has become more than just a study group but a group of friends. I want to thank my wife and my soon-to-be-born daughter for their support. I look forward to the doors of opportunity that this program has opened up for me! “



Academic Achievement Awards (continued)

Michael Christensen

“Before entering the chemical engineering program, I was training to become a commercial pilot. After deciding that wasn’t the family life we wanted, I made the switch to become a chemical engineer. Working full-time for most of my schooling was a challenging but worth the effort. As a first-generation college graduate, I didn’t know what to expect and this has been quite the journey for me. I am looking forward to graduating and remembering that I have hobbies other than schoolwork. My plans for the future are to enter the workforce and start my career. I hope to never stop learning and am excited to enter this next chapter of my life. “



Josh Martineau

“Wow, is Chemical Engineering hard! I'm grateful to my wife and family for supporting me through this experience. We're excited to be headed to BYU Law this fall. Go Cougars!”



Student Voted Awards

“Meme Lord”

Made the most memes/jokes during class

Jessica O’Neill



“I want to thank all my friends and family that helped me get here! Without you, I would have spent many more hours in the ICC, praying ASPEN+ wouldn't crash. Due to our current situation, my summer internship with Freeport McMoRan has been cancelled, but I am working as hard as I can to obtain another job. Good thing I graduated with a Chemical Engineering degree!”

“One More Thing”

Asked the most questions

Arvand Vedadi

“I never thought I would be standing here today, receiving a chemical engineering degree from the University of Utah. For that, I wanted to thank all my professors for believing in me, and handing me the tools necessary to succeed in life from here on out. And I wanted to say thank you to my classmates (and now friends) that I have met in this degree. You have all contributed to my success, and I would not have been able to do it without you. It has been quite the journey, thank you for the memories. “

Engineering is the closest thing to magic that exists in the world. — Elon Musk

Student Voted Awards (continued)

“1000[^]2 dollar baby”

Most likely to be a millionaire in 10 years

Joel Kongolo Ilunga

“To the class of 2020, we all worked hard for this and we deserve all the accolades. We are graduating in a very special time and for some of us the path forward may be uncertain but we all made it this far, and nothing can stop us. Congratulations to all!”



“Resident TA/Fastest Homeworker”

Always on top of the homework assignments

Serena Sorensen



“As I move on from this journey in the engineering program I want to thank all the friends I've made along the way. I couldn't have made it without the teamwork available to me. I look forward to a career as a Chemical Engineer.”

Student Voted Awards (continued)

“Best Buddy”

Most personable student

Carolina Castro



"I wasn't 100% sure about chemical engineering when I first started the program, I'd already decided on chemistry but I figured I'd give it a try. After my first semester, I thought that the classes were kind of interesting so I decided I'd take one more semester's worth of classes. Before I knew it, I was applying for graduation and I couldn't see myself as anything other than an engineer. This has been one of the most challenging and fulfilling journeys of my life and I'm so thankful for it!"

“Doctor”

Most likely to become a Professor

Richard-Joseph Peterson



Student Voted Awards (continued)

“Keepin it 100%”

Always had the highest scores

Gabriel Mensinger

"I've absolutely loved my time here at the U and really sad that we couldn't spend more time together. I'm really excited to move to get to work at the Marathon Petroleum refinery in El Paso, Texas and I hope that one day we can get back together and celebrate right."



“It’s 5’clock somewhere”

Always eager to be done for the day

Dorjbat Dorjmenchim



“I want to thank my family for helping me through this degree. I would also like to thank this year’s graduating class after my graduation was delayed by a year, I was worried about making new friends and not having fun with the program anymore, but you guys have made this year the best year of Chem E for me!”

Student Voted Awards (continued)

“The Duct Tape”

The Person you go to when all else fails



Michael Christiansen

“Before entering the chemical engineering program, I was training to become a commercial pilot. After deciding that wasn’t the family life we wanted, I made the switch to become a chemical engineer. Working full-time for most of my schooling was a challenging but worth the effort. As a first-generation college graduate, I didn’t know what to expect and this has been quite the journey for me. I am looking forward to graduating and remembering that I have hobbies other than schoolwork. My plans for the future are to enter the workforce and start my career. I hope to never stop learning and am excited to enter this next chapter of my life. “

“Down to the wire”

Their best work happens at the last minute

Kortney Shorts



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PROFESSOR AWARDS

“Outstanding Professor”

Overall the most likable, outgoing and inspiring professor

Prof. Tony Butterfield

“Fire Hydrant of Tears”

Assigned homework that produced the largest volume of tears

Prof. James Sutherland

“Mad Engineer”

Most interesting research

Prof. Huanan Zhang

“Best Office Hours”

Had the best office hours (directly with the professor
excluding TAs)

Prof. Stacy Firth

“Deadly Cinnamon Roll”

Looks like a cinnamon roll, but could kill you

Prof. Kerry Kelly

“Back in my day”

Told the best stories in class

Prof. Kevin Whitty

“Farmer Michael”

Most down to earth/personable
(It ain't much but it's honest work)

Prof. Michael Nigra



**Congratulations Class of
2020, we are very proud
of you!**